Effective 5/27/98

ChemScan® UV-4100 Series
TECHNICAL SPECIFICATION

FUNCTIONS AND OUTPUTS

Measurement Principle	High Resolution, Ultraviolet Absorbance
Number of Wavelengths	256
Spectral Range	200 - 450 nm
Calibration Technique	Pattern Recognition of Spectral Data
Number of Parameters	4 max.
Parameter Options	Primary or Secondary Absorbance (See Table 1 or 2)
Data Communications	4 - 20mA (8 outputs max.), RS-232, other formats optional
Data Log	1000 Values Time/Date Stamped, 24 Calibration Spectra
Auto Zeroing	YES (Std)
Auto Cleaning	YES (Std)
Analyzer Pump	YES (Std), Zeroing, Cleaning and Internal Sample Flow Only
Sample Conditioning	YES (Opt), Direct Injection
Number of Sample Lines	1 to 2 thru Internal Manifold

PERFORMANCE SPECIFICATIONS

Reading Interval	3 - 9999 minutes
Response Time	Parameter Dependent (3-5 min. typ.)
Range	Parameter/Site Dependent
Accuracy	Parameter/Site Dependent Typ. 2% to 5% of Range
Precision	Parameter/Site Dependent Typ. 2% of Range
Zero Drift	Parameter Dependent Minimized with Auto Zero

SAMPLE PARAMETERS

Sample Pressure	Pressurized Sample Lines must be regulated to 10 psi maximum, with max. lift 5 ft. and max. run 20 ft. to sample location or line connection
Sample Flow	0.5 to 5 l/min. (1.5 l flush/sampling)
Filtration Requirement	NONE (For samples meeting turbidity and solids requirements), Optional ultrafilter available for high solids or turbidity.
Strainer Requirement	Mesh Opening of 2.0 mm Max.
Sample Temperature	1° - 60°C (Std)
Sample Turbidity	0 - 60 NTU (Max)
Sample Suspended Solids	0 - 150 mg/l (Max)

MAINTENANCE

Light Source Replacement	Every 5 years
Internal Battery Replacement	Every 2 years
Zero/Clean Solution Refill	As Required (2-4 weeks typ.)
Reagent Refill	As Required (2-4 weeks typ.)

INSTRUMENT SPECIFICATIONS

Size	40 x 20 x 10 in.
Weight	130 lbs.
Mounting	Wall (Std) or Stand (Opt)
Finish Coating	Baked Enamel on Steel (Std) or Stainless Steel (Opt)
Power	120 VAC ±10%, 50-60 Hz, 10 Amps max.
Power Connection	Hard Wired (Std) or Plug (Opt)
Power Condition	Dedicated Branch Circuit Free From: Surges/Dips > 10%, RF and

	Switching Noise
Operator Interface	2 x 20 LCD and 4 x 4 Keypad
Sample Cell Material	Polymer Body with Quartz Windows
Sample Connection	¼" FNPT Fitting
Waste Connection	¼" FNPT Fitting (Open Drain Required)

OPERATING ENVIRONMENT

Enclosure Ratings	NEMA 4 (Main Enclosure)
	NEMA 3R (Optrode Enclosure)
Ambient Temperature	5° - 35°C (Std)
Relative Humidity	0 - 100% (Non-Condensing)

Table 1
UV-4100 Analysis Options (Wastewater)

Option	NO_3	NO_2	NH_3	PO_4	%T or AU	Sample Lines	Outputs
1	X	X	X		X	1	4
2	X	X	X	X		1	4
3	X		X	X	X	1	4
4	X	X	X		X	2	8
5	X	X	X	X		2	8
6	X		X	X	X	2	8
7	X		X			1	2
8	X		X			2	4
9	X	X	X			2	6

Table 2
UV-4100 Analysis Options (Potable Water)

Option	Free NH_3	Free Cl_2	Monochloramine	Total Cl_2	Sample Lines	Outputs
10	X			X	1	2
11	X		X		1	2
12	X		X	X	1	3
13	X	X	X		1 plus 1	2 plus 1
14	X	X			1 plus 1	1 plus 1
15	X			X	2	4
16	X		X		2	4
17	X		X	X	2	6

Notes:
1. Technical Specifications are subject to change without prior notice.